

REMARKS

Reconsideration of the rejections of claims 1-7, 14-18, 24-26, 28, 29, 31-33, and 37-39, and consideration of new claims 41-45, is respectfully requested. Claims 1-7, 14-18, and 24-40 are in this application. By this amendment claims 8-13, 19-23, 25, 27, 30, 34-36, and 40 have been canceled without prejudice or disclaimer. Claims 1-7, 14, 15, 17, 18, 24, 26, 28, 29, 31-33, and 37-39 have been amended. New claims 41-45 have been added.

Claims 24, 29, 31-33 and 37 have been amended as suggested by the Patent Office and as discussed below in connection with the claim objections and §112 rejections.

Claims 1, 2-7, 14-15, 24, 26, and 28-29 have been amended for clarity to recite a "non-vulcanized, cured liquid rubberized coating material," and claim 37 has been amended to recite "non-vulcanized rubber." Support for these amendments is found in the specification at Paragraph [0031], lines 5-11, and lines 12-15, Paragraph [0032], lines 3-5, and in original claims 4 and 27.

Claims 24, 28, 29 and 37 have been amended for clarity to recite a moisture barrier having a "non-tacky surface." Support for these amendments is found in the specification at Paragraph [0014], line 11, and Paragraph [0028] line 12, and original claim 15.

Claims 24 and 28 have been amended for clarity to recite a moisture barrier "covering only part of the surfaces of the wood board." Support for these amendments is found in the specification at Paragraph [0033], lines 1-4. Claim 29 has been amended to recite a moisture barrier "covering at least a portion of the surfaces of the wood board." Support for this amendment is found in the specification at Paragraph [0033], lines 1-4, and in Figures 10 and 11. Claim 37 has been amended to recite an elastomeric membrane which is coated onto "only part of the surfaces of the wood board." Support for this amendment is found in the specification at Paragraph [0033], lines 1-4, and in Figures 1-9. Claim 39 has been amended to recite a moisture barrier that "entirely covers the surface of at least one side but not more than five sides of the wood board." Support for these amendments is found in the specification at Paragraph [0033], lines 1-4, and in Figures 8 and 9.

Claim 32 has been amended to recite a building structure "having a floor which comprises a wood-finished floor and a subfloor." Support for this amendment is found in the specification at Paragraph [0030], lines 16-20.

Support for new claims 41-44 is found in the specification at Paragraph [0033], lines 1-4, in Figures 1-11, and in original claim 25. Support for new claim 45 is found in the specification at Paragraph [0033], lines 6-9, original claims 7 and 18, and in Figures 8 and 9.

No new matter has been added by the amendments or the new claims. Reconsideration of this application is respectfully requested.

### The Claim Objections

#### The Objection to Claims 29-36

Claims 29-36 are objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 30 and 34-36 have been canceled without prejudice or disclaimer, thus rendering moot the objection to these claims. Claim 29 has been amended for clarity and rewritten in independent form and claims 31-33 have been amended for clarity to positively recite the elements of a combination of a building structure and a building construction material. It is believed that the amendments overcome the objection.

#### The Objection to Claims 24, 37 and 40

Claims 24, 37 and 40 are objected to because of informalities. Claim 40 has been canceled without prejudice or disclaimer, thus rendering moot the objection to this claim. Claims 24 and 37 have been amended for clarity as suggested by the Patent Office. It is believed that the amendments overcome the objection.

### The § 112 Rejections

#### The Rejection of Claims 35 and 36

Claims 35 and 36 have been canceled without prejudice or disclaimer rendering this rejection moot.

**§ 102 Rejections****Rejection of Claims 1, 4-6, 24, 25, 27-31, and 35-40 under 102(b) as being anticipated by Nemeth**

Applicant respectfully requests reconsideration of Claims 1, 4-6, 24, 25, 28, 29, 31, and 37-39 which have been rejected under 35 U.S.C. § 102(b) as being anticipated by Nemeth; United States Patent No. 4,242,390.

The Patent Office has stated in its paragraph 12, *Response to Arguments*, on page 9 of the Final Office Action, that the term “liquid plastic coating material” reads on the “liquid rubberized coating material” recited in independent claims 1, 24 and 28. Applicant respectfully points out that the phrase “liquid plastic coating material” does not appear anywhere in Nemeth. Neither does the word “rubber” or the term “liquid rubberized coating material” appear anywhere in Nemeth. Nemeth does make reference to a “plastics material” for forming a moisture barrier (see Nemeth, Col 2, lines 58-59). The term “plastic” is used to refer generally to a material that is malleable and moldable and deforms when heated. (See Declaration of Abdul Razzak, submitted herewith.) “Plastic” may also be used to generically refer to specific types of synthetic materials that fall into the major categories of thermoplastics, thermosetting plastics, and elastomeric plastics. For example, polypropylene is a plastic that falls in the category of thermoplastics. Use of the generic term “plastic” to describe a bottle made with polypropylene is comparable to use of the generic term “metal” to describe a copper pan.

Rubber is a specific type of material that is classified as an elastomer. Rubber is not a plastic. (See Declaration of Abdul Razzak.) Materials made with rubber sometimes share certain physical characteristics with elastomeric plastics. Despite the possibility that rubber materials may sometimes share properties which are similar to materials grouped within the generic term “plastic,” “plastic” is not “rubber.” Further, “plastic” is not understood to mean any specific type of plastic, nor is it understood to mean each and every type of plastic. Accordingly, the “plastics material” referenced in Nemeth does not read on and does not anticipate the “non-vulcanized, cured liquid rubberized coating material” recited in claims 1, 24 and 28, and their dependent claims, as amended, nor does it read on the “elastomeric membrane which comprises non-vulcanized rubber” recited in claim 37, and its dependent claims, as amended.

Applicant respectfully submits that Nemeth does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood subfloor, as recited in amended independent claim 1. Nemeth does not disclose a flooring system having a concrete slab, a wood subfloor comprising a rubberized coating, or a finished wood floor, as recited in amended independent claim 1. Nemeth does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claims 24, 28 and 29. And Nemeth does not disclose an elastomeric membrane comprising non-vulcanized rubber which is coated onto a wood board, as recited in amended independent claim 37. The Nemeth disclosure provides a moisture barrier coated on a layered tile, the coating consisting of one or a mixture of the following: a water-repellent wax such as ozocerite wax; a plastic in the form of a thermoplastic material such as ethylene vinyl acetate copolymer; a dried varnish such as vinyl chloride, vinyl acetate copolymer; or a plastic in the form of a thermosetting resin such as polyurethane. (See Nemeth, Col 4, lines 22- 34.) The plastic coatings and barriers of Nemeth are not the same as the coatings and moisture barriers recited in the instant claims and have different physical properties. Nowhere does Nemeth mention rubber, much less disclose a non-vulcanized, cured liquid rubberized coating material. Nowhere does Nemeth mention a board, much less a board coated with a non-vulcanized, cured liquid rubberized coating. Nowhere does Nemeth mention an elastomeric membrane comprising non-vulcanized rubber, in particular an elastomeric membrane comprising non-vulcanized rubber coated onto a wood board. Lacking such disclosure, Nemeth does not anticipate amended claims 1, 24, 28 and 37, or their dependent claims, 4-6, 25, 29, 31, and 38-39, as amended. Dependent claims 27, 30, 35, 36 and 40 have been canceled without prejudice or disclaimer, thus rendering moot the rejection of these claims.

Nemeth also lacks disclosure of other structures and features that are recited in the instant claims. For example: claims 29, and 31-33, as amended, recite a building structure comprising a wood board coated with a non-vulcanized, cured liquid rubberized coating; dependent claim 38, as amended, recites a wood board of elongated cubical shape with six sides. Nemeth does not disclose any of these structures or features. Lacking such disclosure, Nemeth does not anticipate claims 1, 4-6, 24, 25, 29, 31, 37 and 39, as amended. Reconsideration of these claims is respectfully requested.

Rejection of Claims 24, 25, 27-29, 31-33, 35-37 and 40 under 102(e) as being anticipated by Padmanabhan '942

Applicant respectfully requests reconsideration of Claims 24, 25, 28-29, 31-33, and 37 which have been rejected under 35 U.S.C. § 102(e) as being anticipated by Padmanabhan, United States Patent No.6,179,942.

The Patent Office has stated on page 9 of the Final Office Action that the term "liquid plastic coating material" reads on the "liquid rubberized coating material" recited in claims 1, 14, 24 and 28. Applicant respectfully points out that the phrase "liquid plastic coating material" does not appear anywhere in Padmanabhan. Likewise, the word "rubber" and the term "liquid rubberized coating material" do not appear anywhere in Padmanabhan. The Final Office Action seems to suggest that the term "plastic" as used in Padmanabhan encompasses "liquid rubberized coating material." As discussed above in connection with Nemeth, use of the term "plastic" does not constitute a disclosure or suggestion of the rubber materials recited by Applicant. Accordingly, the various references to "plastic" in Padmanabhan do not read on or anticipate the "non-vulcanized, cured liquid rubberized coating material" recited in amended claims 24 and 28, or their dependent claims, as amended, nor do they read on or anticipate the "elastomeric membrane which comprises non-vulcanized rubber" recited in amended claim 37, or its dependent claims, as amended.

Applicant respectfully submits that Padmanabhan does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claim 24, or a moisture barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claims 28 and 29. Also Padmanabhan does not disclose an elastomeric membrane comprising rubber which is coated on to a wood board, as recited in amended independent claim 37. Padmanabhan discloses a layered composite wood board that is laminated on the topside and has attached on its underside a layer of fiber reinforced plastic (FRP) consisting of glass, carbon or aramid fibers set in a matrix such as an epoxy resin, vinyl ester, phenolic resin, polyester, polypropylene and polyamide (Padmanabhan, Col 10, lines 28-29, Col 11, lines 5-6, and 12-14). Nowhere does Padmanabhan mention rubber, much less

disclose a non-vulcanized, cured liquid rubberized coating material. Nowhere does Padmanabhan mention a board coated with a moisture and condensation barrier, much less a board coated with a non-vulcanized, cured liquid rubberized coating. The moisture barrier of Padmanabhan is a rigid and thin panel or sheet of FRP that is attached to the underside of a board. (See Padmanabhan, for example, Col 11, lines 25-33, and 46-54, Col 12, lines 32-38.) Nowhere does Padmanabhan mention an elastomeric membrane comprising rubber, in particular an elastomeric membrane comprising non-vulcanized rubber coated onto a wood board. Lacking such disclosure, Padmanabhan does not anticipate amended claims 24, 28 and 37, or their dependent claims 25, 29, and 31-33, as amended. Dependent claims 27, 35, 36 and 40 have been canceled without prejudice or disclaimer, thus rendering moot the rejection of these claims.

Padmanabhan also lacks disclosure of other structures and features that are recited in the instant claims. For example: claims 29, and 31-33, as amended, recite a building structure comprising a wood board coated with a non-vulcanized cured liquid rubberized coating; and claim 32 further recites a building structure which comprises a wood-finished floor and a subfloor. Padmanabhan does not disclose any building structure, much less a building structure having these features. Lacking such disclosure, Padmanabhan does not anticipate claims 24, 25, 28, 29, 31-33, and 37, as amended. Reconsideration of this rejection is respectfully requested.

Rejection of Claims 24, 25, 27, 28, 30, 36 and 37-40 under 102(e) as being anticipated by Radcliffe

Applicant respectfully requests reconsideration of claims 24, 25, 28, and 37-38 which have been rejected under 35 U.S.C. § 102(e) as being anticipated by Radcliffe, United States Patent No.6,136,408.

Applicant respectfully submits that Radcliffe does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claim 24, or a moisture barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claims 28. And Radcliffe does not disclose an elastomeric membrane comprising non-vulcanized rubber which is coated on to a wood board, as recited in amended independent claim 37. Radcliffe discloses a construction material of layered wood

strands, having a surface of polyurethane which is smooth, has a high gloss, and which is resistant to water penetration, and is produced by surface treatment of the wood with methylene diphenyl diisocyanate or polymeric methylene diphenyl diisocyanate and polyols. (Radcliffe, Col 2, lines 55-67, Col 3, lines 1-11.) Nowhere does Radcliffe disclose a non-vulcanized, cured liquid rubberized coating material. Radcliffe does not mention rubber. The coatings of Radcliffe are thin thermosetting plastics that are chemically different from rubberized coating materials and have very different physical properties when cured. Nowhere does Radcliffe mention an elastomeric membrane comprising a non-vulcanized rubber material. Lacking such disclosure, Radcliffe does not anticipate amended claims 24, 28 and 37, or their dependent claims 25, 38 and 39, as amended. Dependent claims 27, 30, 36 and 40 have been canceled without prejudice or disclaimer, thus rendering moot the rejection of these claims.

Rejection of Claims 1,4-7, 14-15, 24-25, 27-31, and 35-40 under 102(e) as being anticipated by German Patent No. 195,20,567

Applicant respectfully requests reconsideration of Claims 1,4-7, 14-15, 24-25, 28, 29, 31, and 37-39 which have been rejected under 35 U.S.C. § 102(e) as being anticipated by German Patent No. 195,20,567 ("Genshow").

Applicant respectfully submits that Genshow does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood subfloor, as recited in amended independent claim 1. Likewise, Genshow does not disclose a flooring system having a concrete slab, a wood subfloor comprising a non-vulcanized, cured liquid rubberized coating material, or a finished wood floor, as recited in amended independent claim 1. Genshow does not disclose a method of forming a floor system supported by a concrete slab by coating a plurality of boards with a non-vulcanized, cured liquid rubberized coating material and placing the coated boards to create a wood subfloor, as recited in independent claim 14. Genshow does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board, as recited in amended independent claims 24, 28 and 29. And Genshow does not disclose an elastomeric membrane comprising non-vulcanized rubber which is coated on to a wood board, as recited in amended independent claim 37. Genshow discloses coated tiles and plates made of

ceramics and other hard fibers and minerals. The tiles and grout spaces between the tiles are coated with clear thermosetting epoxide and polyurethane resins. (See Genshow, attached translated publication, page 3, lines 1-9) The plastic coatings and barriers of Genshow are not the same as the coatings and moisture barriers recited in the instant claims and have different physical properties. Nowhere does Genshow mention rubber, nor disclose a non-vulcanized, cured liquid rubberized coating material. Nowhere does Genshow mention a wood board, or a wood board coated with a non-vulcanized, cured liquid rubberized coating. Nowhere does Genshow mention a flooring system or method for forming a flooring system which comprises a wood subfloor comprising wood boards coated with a non-vulcanized, cured liquid rubberized coating. And nowhere does Genshow mention an elastomeric membrane comprising rubber, in particular an elastomeric membrane comprising rubber coated onto a wood board. Lacking such disclosure, Genshow does not anticipate amended claims 1, 14, 24, 28 and 37, or their dependent claims, 4-7, 15, 25, 29, 31, 38 and 39, as amended. Dependent claims 27, 30, 35, 36 and 40 have been canceled without prejudice or disclaimer, thus rendering moot the rejection of these claims.

Genshow also lacks disclosure of other structures and features that are recited in the instant claims. For example: dependent claim 38 recites a building construction material having a wood board of elongated cubical shape coated with a non-vulcanized, cured liquid rubberized coating material and having six sides; and claims 29 and 31, as amended, recite a building structure comprising a wood board coated with a non-vulcanized, cured liquid rubberized coating. Genshow does not disclose a board of any kind. Likewise, Genshow does not disclose a building structure comprising a wood board or having the features as recited in claims 29 and 31. Lacking such disclosure, Genshow does not anticipate claims 1, 4-7, 14-15, 24, 25, 28, 29, 31, and 37-39, as amended. Reconsideration of this rejection is respectfully requested.

Rejection of Claims 24, 25 and 27 under 102(b) as being anticipated by Japanese Patent No. 7-268970

Applicant respectfully requests reconsideration of Claims 24 and 25 which have been rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent No. 7-268970.

Applicant respectfully submits that JP 7-268970 does not disclose a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material

coated onto a wood board, as recited in amended independent claim 24. JP 7-268970 discloses a moisture preventing coating layer for use on building members consisting of an amino alkyd resin (JP 7-268970, Abstract, Constitution.). The coating of JP 7-268970 is a thin thermosetting plastic that is chemically different from rubberized coating materials and has very different physical properties when cured. Nowhere does JP 7-268970 mention rubber, much less disclose a cured liquid rubberized coating material. Lacking such disclosure, JP 7-268970 does not anticipate amended claims 24 and 25. Reconsideration of this rejection is respectfully requested. Dependent claim 27 has been canceled without prejudice or disclaimer, thus rendering moot the rejection of this claim.

#### § 103 Rejections

Rejection of Claims 1-7, 14-18, and 24-40 under 103(a) as being unpatentable over Mauran '651 in view of Abendroth '936 and Nemeth '390

Applicant respectfully requests reconsideration of Claims 1-7, 14-18, and 24-26, 28-33, and 37-39 which have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mauran '651 in view of Abendroth '936 and Nemeth '390.

As discussed above, amended independent claim 1 recites a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood subfloor. Amended independent claim 1 also recites a flooring system having a concrete slab, a wood subfloor comprising a non-vulcanized, cured liquid rubberized coating, and a finished wood floor. Independent claim 14 recites a method of forming a floor system supported by a concrete slab by coating a plurality of boards with a non-vulcanized, cured liquid rubberized coating material and placing the coated boards to create a wood subfloor. Amended independent claims 24 and 28 recite a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board. And amended independent claim 37 recites an elastomeric membrane comprising non-vulcanized rubber which is coated on to a wood board.

As described in Mauran, a chamber for the manufacture of bleaching powders is provided. The objective of Mauran is to provide an improved chamber in which the floor of the

chamber can be conveniently and economically cooled during the high-temperature process of powder-making, while maintaining a water- and vapor-tight seal within the chamber floor. (Mauran, Col 1, lines 26-50, Col 2, lines 55-66). To achieve this improved chamber floor, Mauran discloses four layers. The top layer is a floor of closely spaced, chemically resistant, thermally conducting, ceramic tile. The second layer is a thin bed of asphalt to provide gas and moisture proofing. The third layer is a monolithic slab of cement. And the bottom layer is a sheet of insulating paper to shield against heat transfer from the chamber to the work surface. Conspicuously, Mauran does not disclose a wood subfloor as recited in amended claim 1. Mauran does not even mention wood or any wood members such as boards, also as recited in each of the instant independent claims. Mauran does not disclose any coatings, and in particular, Mauran does not disclose any coatings made with a non-vulcanized, cured liquid rubberized coating material as recited in amended claims 1, 14, 24 and 28. Neither does Mauran disclose an elastomeric coating comprising non-vulcanized rubber as recited in amended independent claim 37. Mauran does not even mention rubber.

Abendroth does not provide what Mauran lacks. Much like Mauran, Abendroth provides a multi layered flooring system. In contrast to the Mauran system, which uses tile for the floor surface structure and asphalt for moisture protection, the Abendroth system uses wood boards and laminated sheets for the floor structure and a plastic sheet for moisture protection. The Abendroth system comprises floor boards that form the floor surface and are layered on top of laminated members to permit breathability under the floor surface. The laminated members are layered on top of a rigid material layer for stability, which is layered on top of a resilient layer of polyethylene foam for flexibility and shock absorption. Beneath the resilient layer is vapor barrier layer which is a sheet of 6 mil polyethylene. (See Abendroth, Columns 3 and 4.)

As with the system of Mauran, the Abendroth system rests on a concrete slab bottom layer. As with Mauran, Abendroth does not disclose any coatings on anything, much less coatings on wood boards made with a non-vulcanized, cured liquid rubberized coating material as recited in amended claims 1, 14, 24 and 28. And as with Mauran, Abendroth does not disclose an elastomeric coating comprising non-vulcanized rubber as recited in amended independent claim 37. Abendroth does not mention rubber either. Accordingly, if the flooring system of Mauran were modified by combination with one or more of the various layers of

Abendroth, the resulting combination would lack the distinct feature of boards coated with non-vulcanized, cured liquid rubberized coating materials as recited in Applicant's claims 1-7, 14-18, 24-26, and 28-33. Such a combination would also lack an elastomeric membrane comprising rubber, as recited in claims 37-39.

The Patent Office has suggested that further modification and adaptation of the Mauran/Abendroth combination using the teachings of Nemeth would effectively render obvious the inventions of claims 1-7, 14-18, and 24-40. Applicant respectfully disagrees. As discussed above, the Nemeth disclosure provides an improved design for a layered tile that can be used over a concrete slab to form a floor. The tiles are made of two main layers, a floor surface forming layer and a carrier layer. The floor surface forming layer has a decorative layer and may also have on its surface a wear resistant layer. The carrier layer may also include a moisture barrier or seal means that is remote from the floor surface forming layer (Nemeth, col 2, lines 14-39 and 56-60, claims 12 and 19). Both the moisture barrier and the wear resistant layers consist of one or a mixture of various specific thermoplastic and thermosetting plastic materials (Nemeth, col. 4, lines 22- 34). The moisture barrier layer is applied to a thickness of 0.01 mm to 0.1 mm (col 4, line 34, claim 19). The wear resistant layer is applied to a thickness of 0.1 to 2.5 mm (col 2, lines 67-68, claim 23).

Even assuming one of ordinary skill in the art were motivated to further combine the cited references as suggested by the Patent Office, Nemeth does not provide what the Mauran/Abendroth combination lacks. Nemeth does not disclose a coating made with a non-vulcanized, cured liquid rubberized coating material as recited in amended claims 1, 14, 24, 28 and 29. Nemeth does not disclose an elastomeric coating comprising non-vulcanized rubber as recited in amended independent claim 37. Nemeth does not even mention rubber. A combination of Mauran/Abendroth with Nemeth would thus still not provide the flooring systems of independent claims 1 and 14, or the construction materials of claims 24 and 28, or the building structures of claims 29 and 31-33. While such a combination would provide a flooring system with a concrete slab, and a board coated with one of the plastics of Nemeth, it would still be not be the same as the flooring systems recited in claims 1 and 14. Nor would such a combination provide the construction materials or the building structures recited in any of the instant claims. In short, it could not be obvious for one of skill in the art to combine the cited

references to provide the inventions of Applicant, because such a combination would not in fact provide any of the inventions claimed by Applicant. Accordingly, Applicant asserts that the claims 1-7, 14-18, 24-26, 28-29, 31-33, and 37-39 are not unpatentable over Mauran in view of Abendroth and Nemeth. Applicant respectfully requests that the rejection be withdrawn. Claims 27, 30, 34-36 and 40 have been canceled without prejudice or disclaimer, thus rendering moot the rejection of these claims.

Rejection of Claims 1 and 24 under 103(a) as being unpatentable over Nemeth, or JP7-268970, or Padmanabhan in view of Abendroth '936.

Applicant respectfully requests reconsideration of Claims 1 and 24 which have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nemeth, or JP 7-268970, or Padmanabhan in view of Abendroth '936.

The Nemeth, JP 7-268970 and Padmanabhan disclosures are discussed above; neither of these references teaches or suggests a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood subfloor as recited in amended claim 1. Likewise, none of these references teaches or suggests a moisture and condensation barrier comprising a non-vulcanized, cured liquid rubberized coating material coated onto a wood board as recited in amended claim 24. None of these references teaches or suggests a wood subfloor. Nemeth specifically does not teach or suggest a wood board. Also, the vapor barrier plastic panels taught by Padmanabhan are not coated on to the laminated boards disclosed in that reference.

The Patent Office suggests that one of ordinary skill in the art would be motivated to combine one of the references of Nemeth, or JP 7-268970 or Padmanabhan with Abendroth, and that such combination would provide the inventions recited in Applicant's claims 1 and 24. Abendroth provides a multi layered flooring system built on a concrete slab foundation. The system uses wood boards and various rigid and flexible members for structure and a plastic sheet to protect these structural members from vapor and moisture penetration through the concrete slab. As discussed in Abendroth, the sheeting layer is draped over the concrete slab foundation and is preferably not secured to the foundation or any other part of the flooring system. (Abendroth, Col. 4, lines 13-15.)

Applicant respectfully argues that one of ordinary skill would not be motivated to combine any one of the Nemeth, JP 7-268970, or Padmanabhan references with Abendroth. Each of those primary references provides an attached moisture barrier. The Nemeth and JP 7-268970 barriers are plastics coated on to the desired surfaces of the substrates. The Padmanabhan vapor panel is a reinforced plastic that is permanently attached to the surface of the wood substrate. The close attachment of the moisture barriers in each of these references is central to the design of the disclosed systems. In contrast, Abendroth states that it is preferable that the vapor barrier is not attached. Given the approaches of Nemeth, JP 7-268970 and Padmanabhan references on the one hand, and the opposing approach of Abendroth on the other hand, Applicant submits that none of these references would suggest or motivate substitution of the disclosed moisture barriers of either Nemeth, or JP 7-268970 or Padmanabhan, with a barrier that is not attached to the surface to be protected from moisture, such as the loose plastic sheeting disclosed in Abendroth.

Even assuming one of ordinary skill in the art were motivated to further combine the references as suggested by the Patent Office, Abendroth does not provide what each of the primary cited references lacks. Abendroth does not disclose any coatings on anything, much less coatings on wood boards made with a non-vulcanized, cured liquid rubberized coating material as recited in amended claims 1 and 24. Abendroth does not mention rubber. Accordingly, even if the layered wooden floor tiles installed over a concrete slab, as described by Nemeth, were modified by combination with the vapor barrier or any of the other flooring layers of Abendroth, the resulting combination would lack the distinct feature of wood boards coated with a non-vulcanized, cured liquid rubberized coating material as recited in Applicant's claims 1 and 24. Similarly, if the amino alkyd resin-coated building members of JP 7-268970 were combined with the vapor barrier or any of the other flooring layers of Abendroth, the resulting combination would also lack the distinct feature of wood boards coated with a non-vulcanized, cured liquid rubberized coating material as recited in Applicant's claims 1 and 24. And finally, combination of the laminated wood board of Padmanabhan with the vapor barrier or any of the other flooring layers of Abendroth would as well lack the distinct feature of wood boards coated with a non-vulcanized, cured liquid rubberized coating material as recited in Applicant's claims 1 and 24. For the foregoing reasons, it could not be obvious for one of skill in the art to combine the cited references to provide the inventions of Applicant, because such combinations, even if made,

would not in fact provide any of the inventions claimed by Applicant in claims 1 and 24. Accordingly, Applicant asserts that the claims 1 and 24 are not unpatentable over Nemeth, or JP 7-268970 or Padmanabhan in view of Abendroth. Applicant respectfully requests that the rejection be withdrawn.

New Claims:

New dependent claims 41-45 have been added by this amendment.

Each of the new dependent claims 41-44 includes the features recited in any one of the parent independent claims 24, 28 or 37 of a moisture and condensation barrier having a non-tacky surface and comprising a cured, non-vulcanized rubber coated on to only part of the surfaces of a wood board.

New dependent claim 46 includes the features recited in parent claims 31 and 29 of a moisture barrier comprising a non-vulcanized, cured liquid rubberized coating material having a non-tacky surface and covering at least a portion of the surfaces of a wood board.

Based on the reasons given above, Applicant respectfully submits that the new claims 41-45 are not anticipated by, are not obvious from, and are patentable over the cited references. Further, Applicant respectfully submits that the new claims 41-45 do not introduce new matter.

ADDITIONAL REMARKS

As noted in the Office Interview Summary, several additional references have been cited by the Patent Office, although not raised as the basis of any rejections of any claims. As suggested by Examiner Yip, Applicant has reviewed these several additional references and offers remarks regarding the same.

Ehrlich, U.S. Pat. No. No. 2,875,101 ("Ehrlich"), provides a wooden piece that is completely encased in a very thin, transparent, non-visible skin made from a dried mixture of natural rubber and methylcellulose. Wooden pieces encased in this skin are intended to be repeatedly and reversibly engaged with each other through cohesive attraction of their surfaces. These pieces are used for toys and models. Ehrlich does not teach or suggest that the skins provide any moisture barrier effect to protect the wooden pieces. Ehrlich does not teach or suggest any building construction materials that comprise a moisture barrier. Ehrlich does not teach or suggest any building structures comprising such a moisture barrier. Ehrlich does not teach or suggest any flooring systems comprising a moisture barrier, or of any methods of making flooring systems comprising such a moisture barrier.

Hering, U.S. Pat. No. 4,690,848 ("Hering I"), Hering, U.S. Pat. No. 4,562,103 ("Hering II"), Haigh, U.S. Pat. No. 3,770,536 ("Haigh"), Atwood, U.S. Pat. No. 1,403,142 ("Atwood"), and Bronson, U.S. Pat. No. 1,819,147 ("Bronson"), all provide various substrates which are either impregnated or coated with a vulcanized rubber material. The vulcanized rubber of Hering I and II is penetrated into the surface of particle board. The vulcanized rubber of Haigh is used as an adhesive for binding a laminate to a substrate. The vulcanized rubber of Atwood serves to bind layers or plies of wood material together. The vulcanized rubber of Bronson is used to provide a strong and durable tread surface for a vehicle running board; Bronson also provides a moisture barrier made of metallic paint. None of these references teaches or suggests a non-vulcanized, cured liquid rubberized coating, or a moisture barrier comprising the same. None of these references teaches or suggests any flooring systems comprising a moisture barrier made with a non-vulcanized, cured liquid rubberized coating, or of any methods of making flooring systems comprising such a moisture barrier. Neither Haigh, Atwood nor Bronson

teaches or suggests any construction materials that comprise a moisture barrier of any kind, or any building structures comprising a moisture barrier.

Oakley, U.S. Pat. No. 6,224,700 ("Oakley") provides a method for waterproofing an architectural component above the grade line by applying a tacky elastomeric membrane to the exterior surface of the architectural component then pressing a polymeric sheet over the membrane's tacky surface. Oakley does not teach or suggest a building construction material comprising a moisture barrier having a non-tacky surface and a non-vulcanized, cured liquid rubberized coating material. Oakley does not teach or suggest a building structure comprising a moisture barrier having a non-tacky surface and a non-vulcanized, cured liquid rubberized coating material. And Oakley does not teach or suggest a flooring system of any kind.

Colten, U.S. Pat. No. 4,204,106, Fiechtl, U.S. Pat. No. 6,189,279, Kobayashi, U.S. Pat. No. 5,879,491, and Colten, U.S. Pat. No. 4,117,305, all provide plastic sheets and films that are used as moisture barriers in flooring systems. Much like the plastic sheets and panels of Abendroth and Padmanabhan, these various moisture barriers are not coated onto the surfaces of wood boards. Moreover, none of these references teaches or suggests the use of coatings or of rubber, much less a non-vulcanized, cured liquid rubberized coating, or a moisture barrier comprising the same, or any building structures comprising such a moisture barrier. None of these references teaches or suggests any flooring systems comprising a moisture barrier made with a non-vulcanized, cured liquid rubberized coating, or of any methods of making flooring systems comprising such a moisture barrier.

Buchbinder, U.S. Pat. No. 4,076,569, Whittum, U.S. Pat. No. 4,019,922, Shriver, U.S. Pat. No. 3,189,514, Totten, U.S. Pat. No. 6,231,994, McBride, U.S. Pat. No. 2,149,026, Sadashige, U.S. Pat. No. 3,969,558, and Passaro, U.S. Pat. No. 3,619,964, all provide various substrates with various plastic and mastic coatings, none of which include rubber. Hauser, U.S. Pat. No. 5,464,680, Scott, U.S. Pat. No. 4,789,364, and Maag, U.S. Pat. No. 5,510,198, all provide various forms for making or texturing concrete structures. Tank, U.S. Pat. No. 3,518,800, Abendroth, U.S. Pat. No. 4,449,342, Schneider, U.S. Pat. No. 4,644,720, Tibbals, U.S. Pat. No. 3,579,941, Counihan, U.S. Pat. No. 5,497,590, and Schiffer, U.S. Pat. No. 4,699,834, all provide various components for flooring systems, none of which are coatings for

06821/06258

providing a moisture barrier. Edwards, U.S. Pat. No. 3,962,168, and Tellman, U.S. Pat. No. 4,109,041, each provide coated materials that are used for improving safety in high-traffic or construction areas by providing non-skid walking surfaces. Brasky, U.S. Pat. No. 4,480,175, Pickard, U.S. Pat. No. 5,454,428, and Teigen, U.S. Pat. No. 4,577,593, each provide various embodiments of heating systems. None of these references teaches or suggests a non-vulcanized, cured liquid rubberized coating, or a moisture barrier comprising the same. None of these references teaches or suggests any flooring systems comprising a moisture barrier made with a non-vulcanized, cured liquid rubberized coating, or of any methods of making flooring systems comprising such a moisture barrier. None of these references teaches or suggests any construction materials that comprise a moisture barrier made with a non-vulcanized, cured liquid rubberized coating, or any building structures comprising such a moisture barrier.

Conclusion

In view of the amendment to this application and the remarks made above, reconsideration and allowance of claims 1-7, 14-18, 24-26, 28, 29, 31-33, and 37-39 and new claims 41-47 is respectfully requested.

Applicant believes that his application is now in condition for allowance, and prompt notice to that effect is respectfully requested.

Respectfully submitted,

Date: July 7, 2003

  
Diane H. Dobrea, Reg. No. 48,578  
(216) 622-8485  
Customer Number 24024

